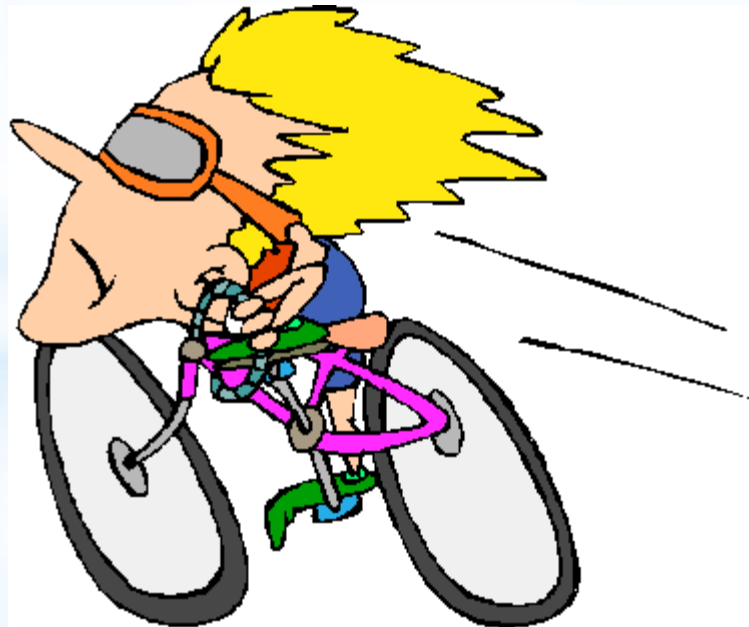




*Forces

*When you ride a bike your foot pushes against the pedal.

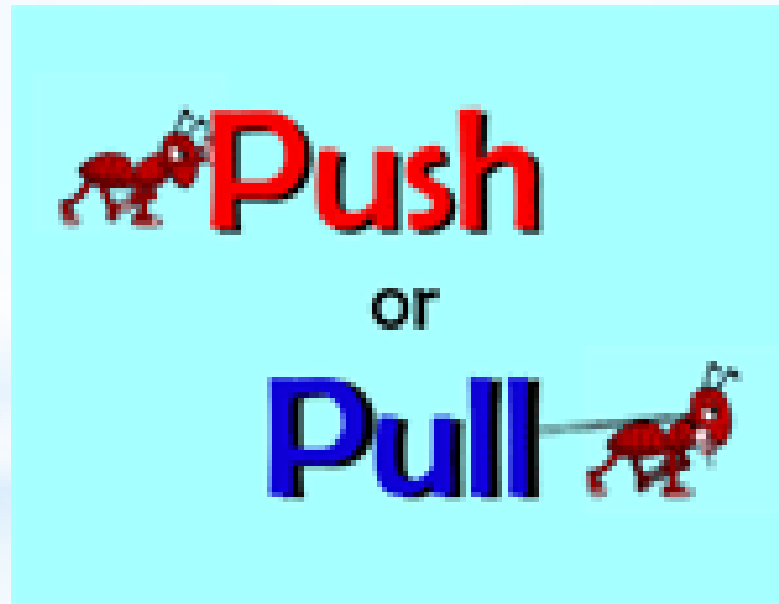
*That push makes the wheels of the bike move.



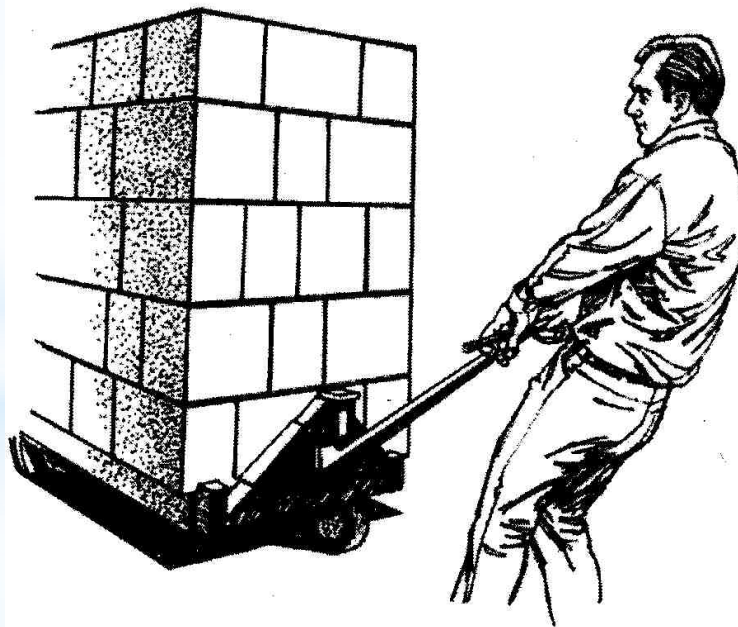
*When you drop something, it is pulled to the ground by gravity.



- * A push or a pull is a force.
- * A good definition for force is a push or a pull in a particular direction.



- * Forces affect how objects move.
- * They may cause motion.
- * They may also slow, stop or change the direction of motion of an object that is already moving.



- * Forces can affect motion in several ways:
- * They can make objects:
 - * Start moving
 - * Move Faster
 - * Move Slower
 - * Stop Moving
 - * Change Direction
 - * Change Shape



*Because force causes change in the speed or direction of an object, we can say that forces cause changes in velocity.

*Velocity is the amount of distance travelled in a certain amount of time and in a certain direction.



*Force Facts:

- *Forces are measured in Newtons (N).
- *Forces usually act in pairs.
- *Forces act in a particular direction.
- *Forces usually cannot be seen, but their effects can be felt.

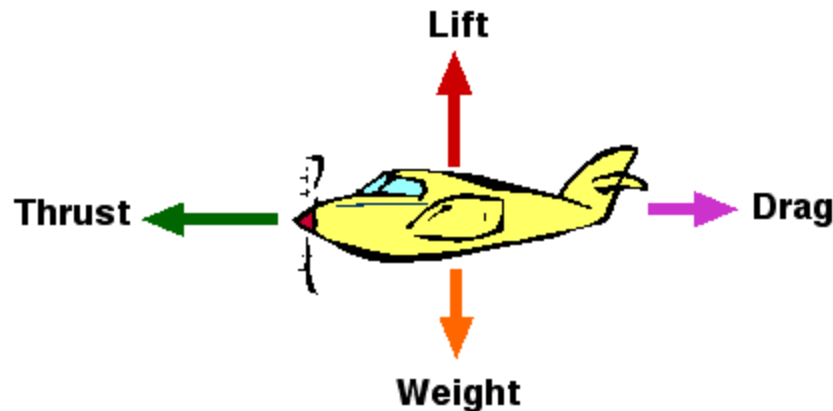


*Label the forces in each picture as a **PUSH** or **PULL**.

*Then describe whether the force is causing a change in **SPEED** or **DIRECTION** or **BOTH**?

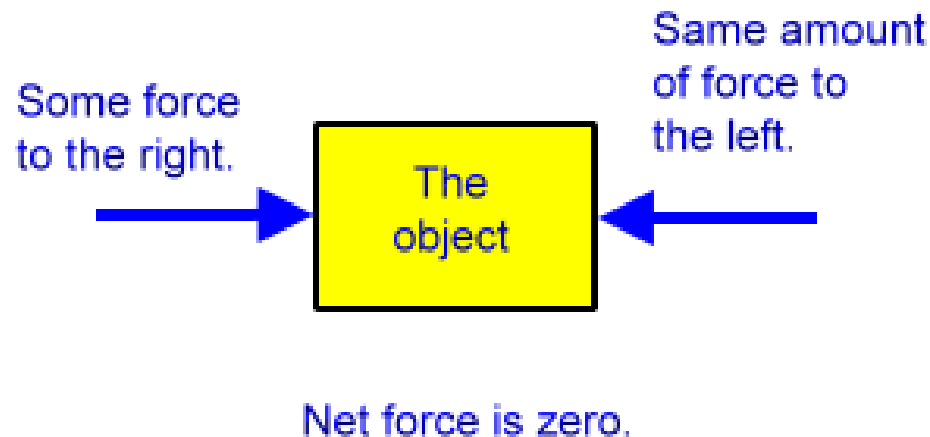
*Individual Work

- * More than one force can act on an object at a time.
- * The forces can push or pull in any direction.
- * What happens to the object when the forces act depends on two things:
 - * 1) How strong the forces are?
 - * 2) The direction of the force.



*When more than one force acts on an object, the forces combine to form a net force.

*Net force is the combination of all the forces acting on an object.



* Forces may work together or they may be opposite forces.

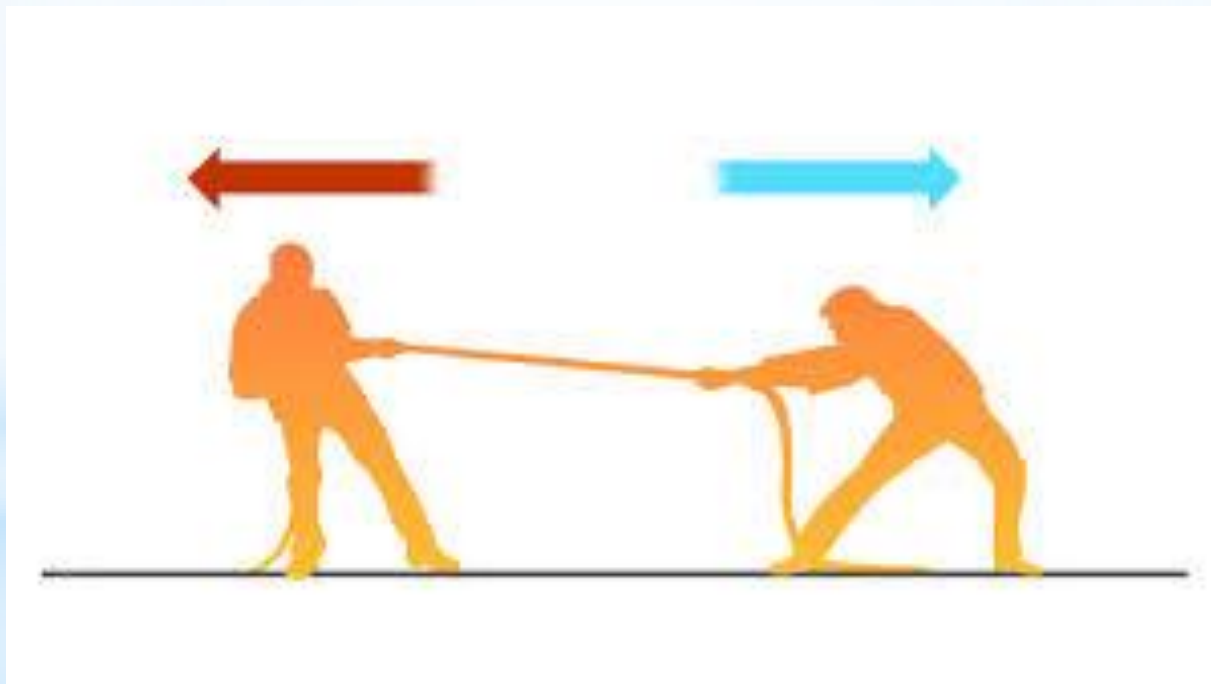
* Two or more opposite forces are balanced forces if their affects cancel each other and they do not cause a change in an object's motion



* If two forces of equal strength act on an object in opposite directions, the forces will cancel, resulting in a net force of zero and no movement.

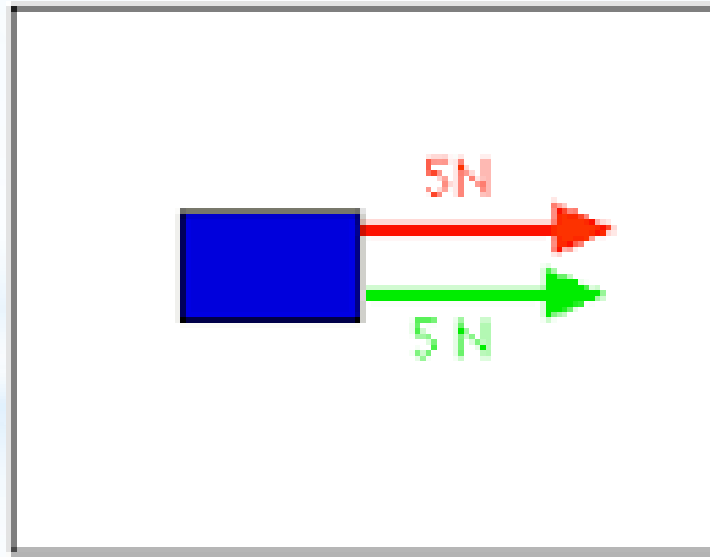


- * If one force is stronger than the others, the forces are unbalanced forces.
- * Unbalanced forces cause a change in motion (speed and/or direction)



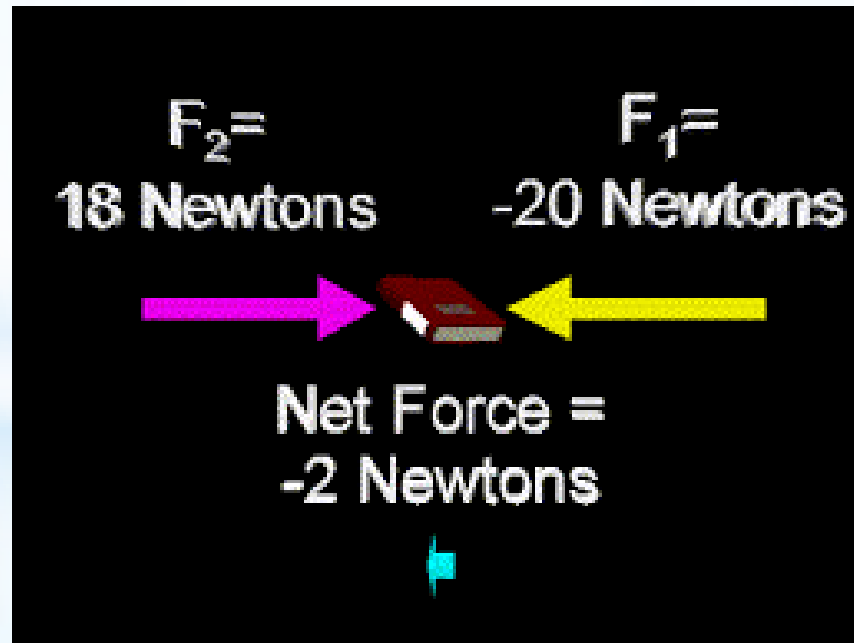
*When two forces act in the same direction on an object, the net force is equal to the sum of the two forces.

*Net force = Force 1 + Force 2



*When two unequal forces act in the opposite directions on an object, the net force is equal to the difference of the two forces.

*Net force = Force 1 - Force 2



*The final force is call the resultant.



* Forces Worksheet 4 and 5

* Circle the best answer for each question

* Individual Work